

## 40A 200V SCHOTTKY RECTIFIER

### Features:

- Super Low Forward Voltage ( SLVF® ) Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

### Applications:

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications

KSR40200CT



**TO-220AB**

KSRF40200CT



**ITO-220AB**

KSRB40200CT

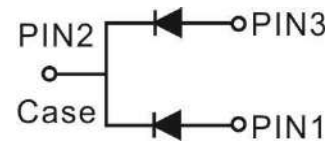


**TO-262**

KSRD40200CT



**TO-263**



### Major ratings and characteristics

Characteristics	Values	Units
I <sub>F(AV)</sub> Rectangular Waveform	20 × 2	A
V <sub>RRM</sub>	200	V
V <sub>F@ 20A , T<sub>j</sub>=125 °C</sub>	0.76	V
T <sub>J</sub> Operating Junction Temperature	-65 to +150	°C

## 1. Characteristics

### Maximum Ratings Characteristics

( $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	$V_{RM}$	200	Volts
Working Peak Reverse Voltage	$V_{RWM}$		
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) - 50% duty cycle	$I_o$	40	Amps
Peak Forward Surge Current - 1/2 60hz	$I_{FSM}$	300	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	$I_{RRM}$	4	Amps
Typical Thermal Resistance (per leg) Package = TO-220AB Package = ITO-220AB Package = TO-262 Package = TO-263	$R\theta_{JC}$	2.3 4.5 3.6 4.0	$^\circ\text{C} / \text{W}$
Isolation voltage (ITO-220 only)	$V_{AC}$	1500	V
Maximum Rate of Voltage Change ( at Rated $V_R$ )	$dv/dt$	10000	V/uS
Operating Junction Temperature	$T_J$	- 40 to +150	$^\circ\text{C}$
Storage Junction Temperature	$T_{STG}$	- 40 to +150	

### Electrical Characteristics - (per leg)

( $T_A = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 10 A	$T_J = 25^\circ\text{C}$	$V_F^*$	0.75	-----	Volts
	IF = 20 A			0.85	0.90	
	IF = 10 A	$T_J = 125^\circ\text{C}$		0.60	-----	
	IF = 20 A			-----	0.76	
Instantaneous Reverse Current	At $V_{RM}$	$T_J = 25^\circ\text{C}$	$I_R^*$	-----	10	$\mu\text{A}$
		$T_J = 125^\circ\text{C}$		-----	$\text{mA}$	

\* Pulse width < 300 uS, Duty cycle < 2%

Typical Junction Capacitance <sup>1</sup>	$C_J$	380	pF
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Notes:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.

## 2. Characteristics Curves

### Ratings and Characteristics Curves

( TA = 25°C unless otherwise specified )

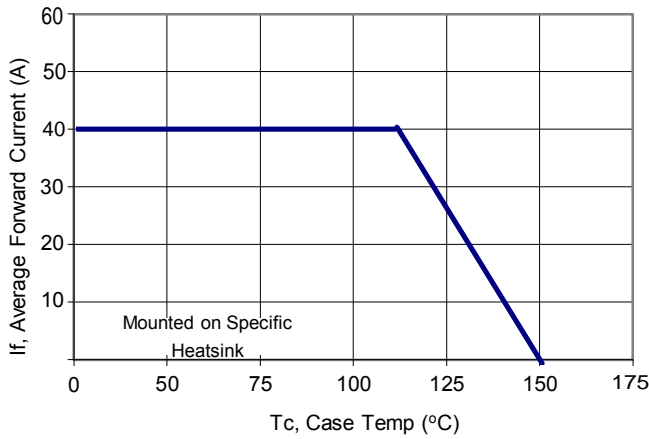


Figure 1: Current Derating, Case

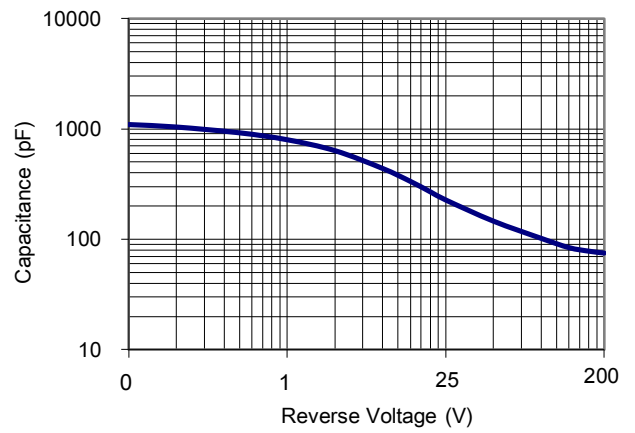


Figure 2: Typical Junction Capacitance

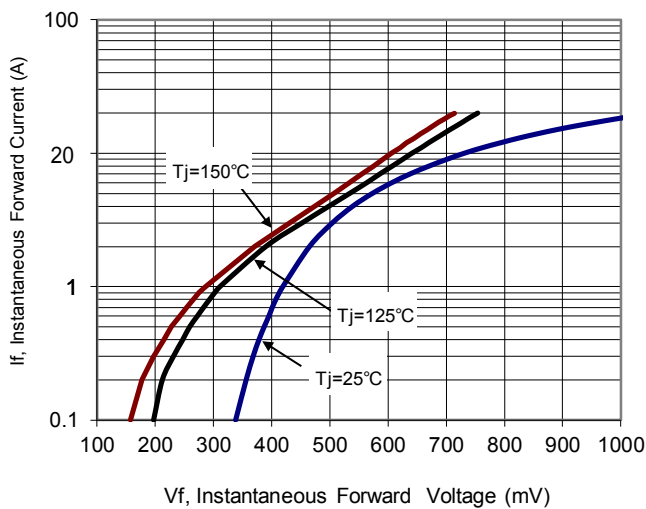


Figure 3: Typical Forward Voltage

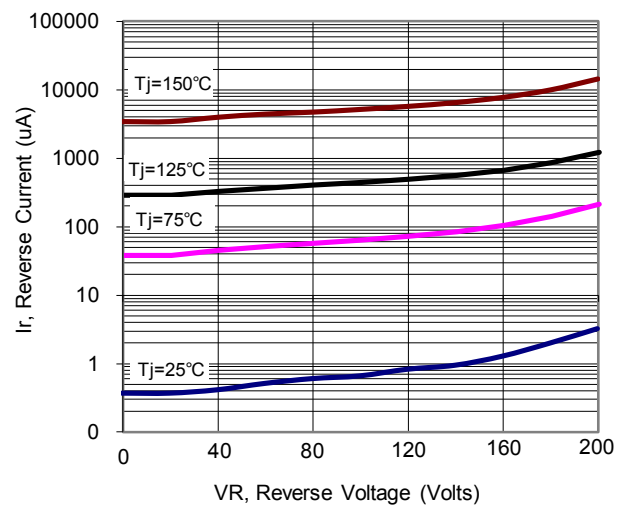


Figure 4: Typical Reverse Current

### 3. Marking information

#### Top Marking Rule

**SR40200CT**  
**YWW**

SR40200CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

**SRF40200CT**  
**YWW**

SRF40200CT = Product Type Marking Code  
YYWW = Date Code  
YY = Last two digits of year  
WW = Week code

**SRB40200CT**  
**YWW**

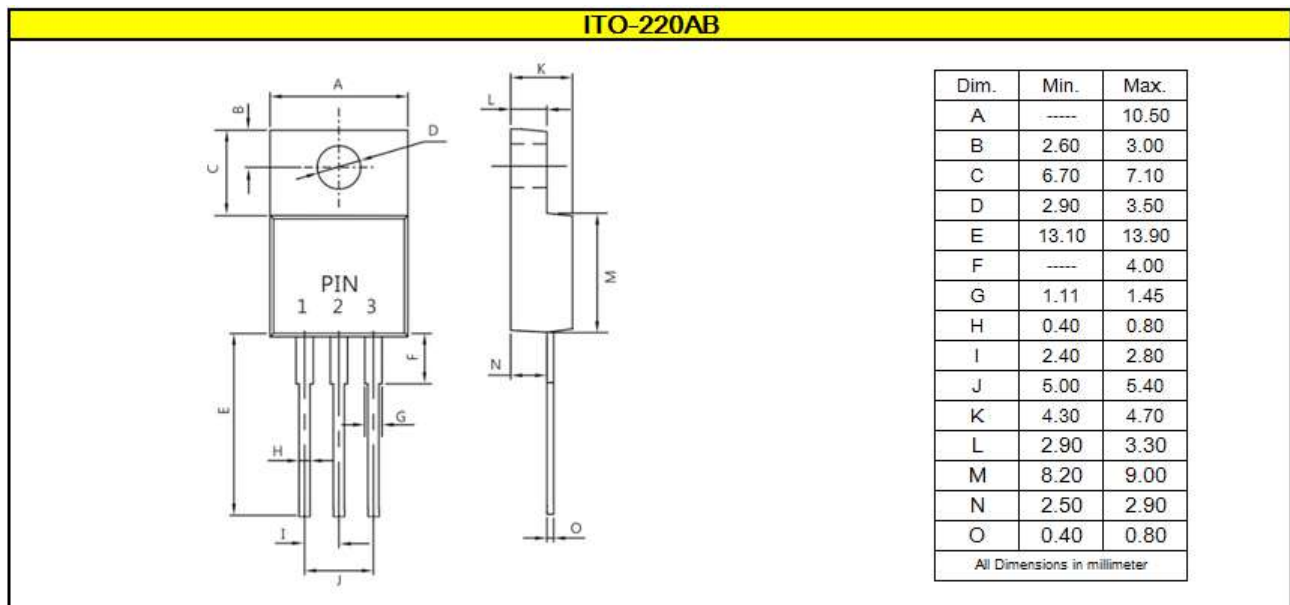
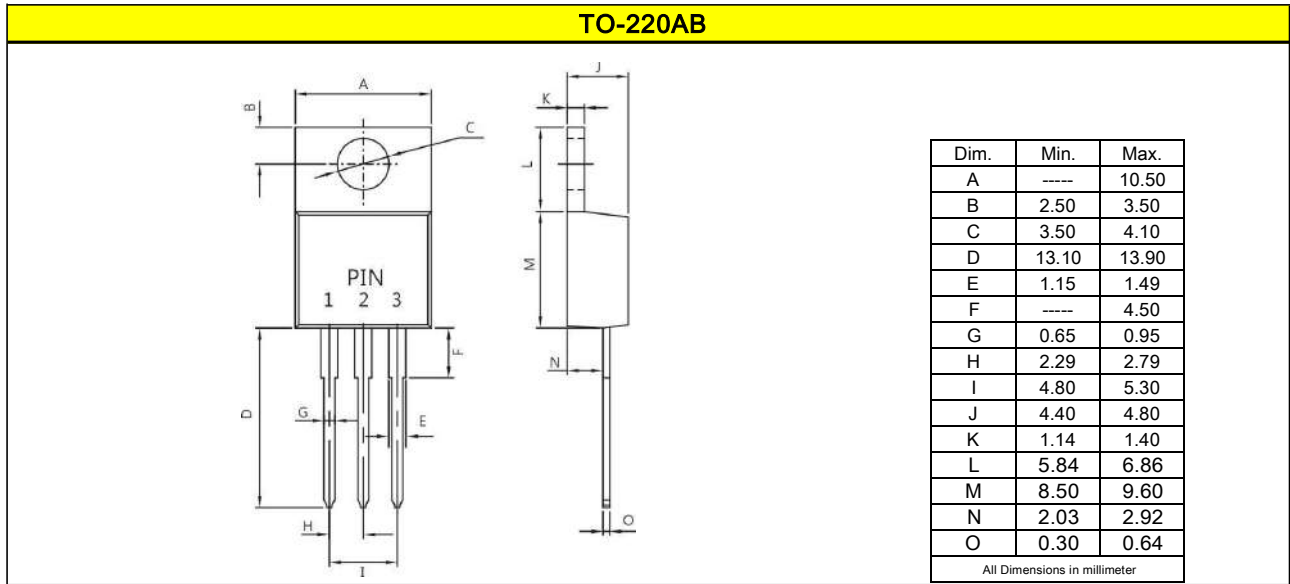
SRB40200CT = Product Type Marking Code  
YWW = Date Code  
Y = Last two digits of year  
WW = Week code

**SRD40200CT**  
**YWW**

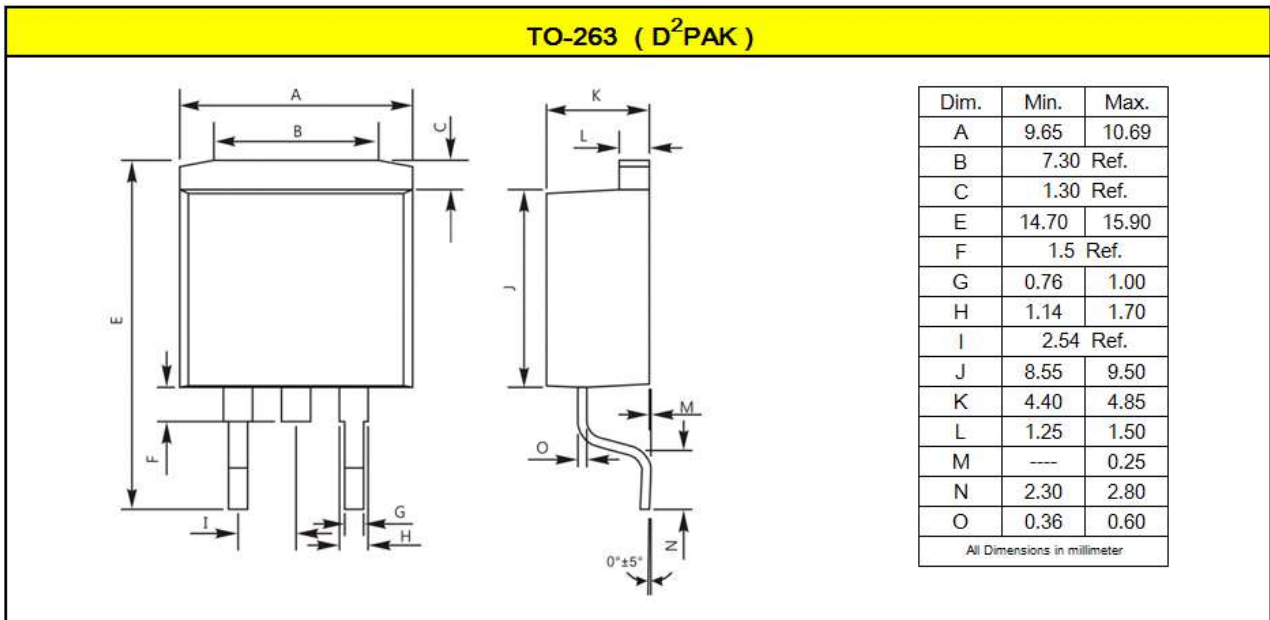
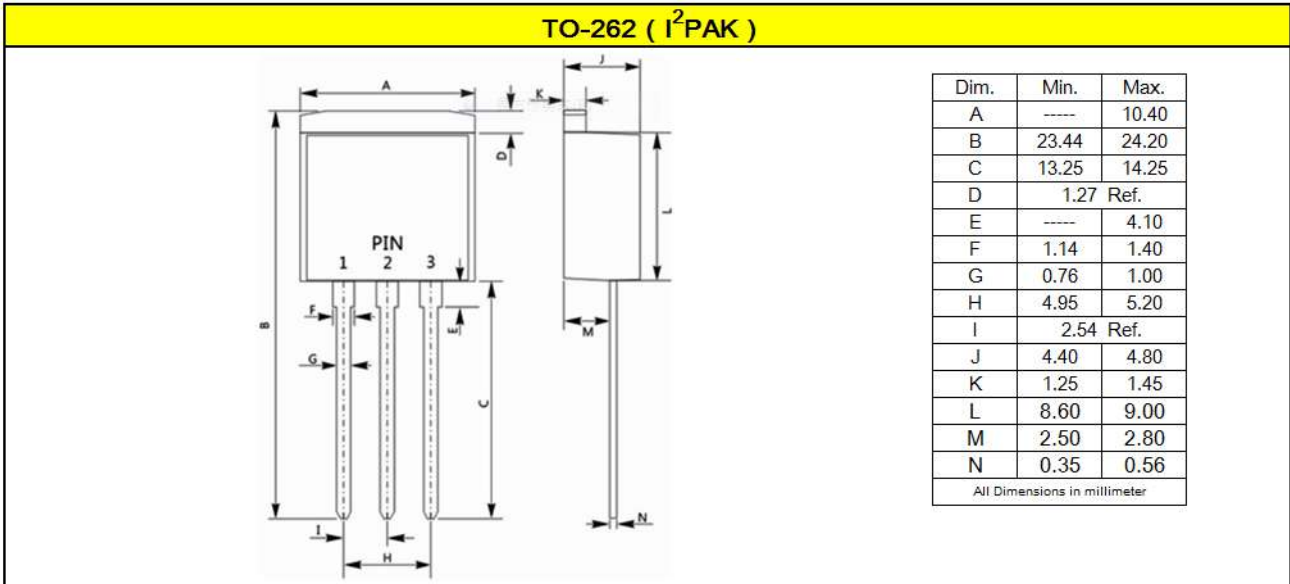
SRD40200CT = Product Type Marking Code  
YWW = Date Code  
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## 4. Package information

### Package Outline Dimensions millimeters



**Package Outline Dimensions millimeters**



## 5. Ordering information

Part Number	Package	Delivery mode
KSR40200CT	TO-220AB	50 pieces / tube
KSRF40200CT	ITO-220AB	50 pieces / tube
KSRB40200CT	TO-262	50 pieces / tube
KSRD40200CT	TO-263	800 pieces / 13" diameter reel

### Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.07 ounces (1.96grams) - TO-220AB  
0.06 ounces (1.74grams) - ITO-220AB  
0.05 ounces (1.45 grams) - TO-262  
0.04 ounces (1.16 grams) - TO-263
- Mounting Torque : Recommended 4~5 kg-cm.